

A signal transmission system of an OFDM using a plurality of carriers to transmit signal comprises a transmitting apparatus and a receiving apparatus. The receiving apparatus comprises an input unit for applying the OFDM signal from the transmitting apparatus; a fast Fourier transforming unit for separating the OFDM signal from the input unit into base-band signals including pilot signals; an interpolation unit for interpolating the pilot signals in a time-axis direction and a frequency-axis direction to calculate reference signal vectors of the carriers in which the pilot signals are not included; a demodulation unit for decoding to be produced as information codes; a delay unit for adjusting a delay time of said base-band signals passing the delay unit; and a control unit coupled with the interpolation unit, for changing frequency band characteristics of the interpolation unit.